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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/614,527	VAN OPDORP, DAMON GERARD
	Examiner	Art Unit	
	Michael D. Pham	2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>07 July 2003</u>.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-55</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-55</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>07 July 2003</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

Detailed Action

1. Claims 1 - 55 have been examined.

2. Claims 1 - 55 are pending.

3. Claims 1 - 55 are rejected as detailed below.

Priority

Applicant has claimed on domestic nor foreign priority. Therefore the application has been

treated to have an effective filing date of 7/7/2003.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and
distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2-23, 25-45, and 47-52 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention.

Claims 2-23 recite the limitation "A method" as the first two words of each limitation. There

is insufficient antecedent basis for these limitations in the claims.

Claims 25-45 recite the limitation "A system" as the first two words of each limitation.
There is insufficient antecedent basis for these limitations in the claims.

Claims 47-52 recite the limitation "A system" as the first two words of each limitation.
There is insufficient antecedent basis for these limitations in the claims.

Claim 23 and 45 contain the trademark/trade name JDBC. Where a trademark or trade name
is used in a claim as a limitation to identify or describe a particular material or product, the
claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex
parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the
trademark or trade name cannot be used properly to identify any particular material or
product. A trademark or trade name is used to identify a source of goods, and not the goods
themselves. Thus, a trademark or trade name does not identify or describe the goods
associated with the trademark or trade name. In the present case, the trademark/trade name is
used to identify/describe a application programming interface and, accordingly, the
identification/description is indefinite.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or
composition of matter, or any new and useful improvement thereof, may obtain a patent
therefor, subject to the conditions and requirements of this title.

Claim 1 is rejected under 35 U.S.C. 101 non-statutory because the claim as written is directed

to a computer program/software per se and is thus nonfunctional descriptive material.

Claims 2-23 and 54 are rejected under U.S.C. 101 for failing to resolve the deficiencies of

claim 1.

Nonfunctional descriptive material may be claimed in combination with other functional

descriptive multimedia material on a computer-readable medium to provide the necessary

functionality and structural interrelationship to satisfy the requirements of 35 U.S.C. 101.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-2, 4, 6, 7-17, 19-20, 22-24, 26-39, 41-42, 44-46, 48-51, and 52-55 are rejected

under 35 U.S.C. 102(e) as being anticipated by (U.S. Patent 6807632) by Carpentier et. al.

(hereafter Carpentier).

1. **A method for a primary application to verify the integrity of a secondary application including the steps of:**

Carpentier discloses:

    i.   **obtaining a reference reduced representation by:**

        a. **applying a process to obtain schema metadata from the secondary application** [Carpentier, Col. 1 lines 54-59, "Data on computer systems can generally only be accessed through identifiers or location mechanisms which to a greater or lesser extent include information about the location of the file in the storage of the computer."];

        b. **creating a reference reduced representation of the first obtained schema metadata using an algorithm**[Col. 5 lines 58-60, "There is no restriction on the data, meta data or file system structure that can be stored and referenced by an e-CLIP[1]."]; and

        c. **storing the reference reduced representation** [Col. 5 lines 58-60, "There is no restriction on the data, meta data or file system structure that can be stored and referenced by an e-CLIP."];

    ii.   **during execution of the primary application, applying the process to obtain the schema metadata from the secondary application** [Carpentier, Col. 1 lines 54-59, "Data on computer systems can generally only be accessed through identifiers or location mechanisms which to a greater or lesser extent

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[1] An e-CLIP may represent a file, a group of files, a group of file identifiers, or other collections of data or database information.

include information about the location of the file in the storage of the

computer."];;

iii.   **creating a second reduced representation of the second obtained schema**

metadata using the algorithm[Col. 5 lines 58-60, "There is no restriction on

the data, meta data or file system structure that can be stored and referenced

by an e-CLIP." Col. 3 lines 35-37, "The differences between Should Have

lists and Already Have lists for individual computers are used to determine

which items must be compared to update individual desktops."];

iv.   **comparing the reference reduced representation and the second reduced**

representation [Col. 3 lines 35-37 "The differences between Should Have

lists and Already Have lists for individual computers are used to determine

which items must be compared to update individual desktops."];and

v.   **controlling execution of the primary application dependent on the**

outcome of the comparison [Col. 3 lines 35-37 "The differences between

Should Have lists and Already Have lists for individual computers are used to

determine which items must be compared to update individual desktops."].

Claim 2:

A method as claimed in claim 1 wherein the second application is a database [Col. 13 lines 25-

34, "It must be noted that the examples used in this description all make reference to files. The

assets, however, may be references to database records, video clips taken from within larger

video streams, or other digital assets stored to be passed to other software programs or

processes. Rather than instantiating directories and creating files with the contents of the digital

assets, the recipient would make them available via some other standard application programming interface. "]

Claim 4:

A method as claimed in claim 2 wherein the algorithm is a hash function [Carpentier, Col. 4 lines 49-50, cryptographic hash function is used to compute an identifier for the data being represented..].

Claim 6:

A method as claimed in claim 2 wherein the algorithm is a lossless compression algorithm[Carpentier, Col. 2 lines 8-10, "Examples of archive utilities include the "tar" archiving facility common on UNIX systems and the various "zip" programs on personal computers."].

Claim 7:

A method as claimed in claim 6 wherein the lossless compression algorithm is one selected from the set of zip, gzip, and bzip2[Carpentier, Col. 2 lines 8-10, "Examples of archive utilities include the "tar" archiving facility common on UNIX systems and the various "zip" programs on personal computers."].

Claim 8:

A method as claimed in claim 2 wherein the reference reduced representation is stored by embedding the representation within the primary application [Col. 12 lines 11-14, "Such e-CLIPs may be embedded in and readily accessed from database applications, legacy applications running on mainframes, text retrieval applications, web sites, etc"].

Claim 9:

A method as claimed in claim 2 wherein the reference reduced representation is stored by embedding the representation within configuration files for the primary application [Col. 12 lines 30-36, "If the unique identifier is verified in step 310, then control is transferred to step 312 and the recipient builds the directory structure specified in the descriptor file. Programming logic is applied to perform system configurations and file operations to create the required directories, using programming operations such as those described by H[t]ML, for example."].

Claim 10:

A method as claimed in claim 2 wherein step (i) is repeated before steps (ii) to (v) at least one time when an expected change occurs to the schema metadata in the database [Col. 1 lines 28-31, "digital information is highly subject to change and few methods are available to inspect the contents of the digital information to reliably recognize whether it has been changed since some prior time or event." Col. 3 lines 1 – 9, "Currently, it is necessary to keep track of both the files that are on the requesting computer and the files that need to be added so that proper updates can be made. It would be useful if there existed a way to specify all of the files that are to be transferred and to encapsulate that specification in such a way that would allow

the files to be retrieved from the most convenient place (locally, if possible). It would further

be useful if such a method would allow the files to be reliably verified as the correct files.].

Claim 11:

A method as claimed in claim 2, wherein the process includes organizing the extracted

schema metadata using a nested and determinable method [Col. 5 lines 30-36, "Having such

file directory structure is helpful in determining how to organize files amongst their respective

folders. For example, after data is lost on a particular computer, the file list can be used to not

only identify lost files, but also to reorganize the files into the appropriate directory structure."].

Claim 12:

A method as claimed in claim 11 wherein the nested and determinable method is by

alphabetical listing of the schema metadata elements [Col. 9 lines 24-29, "The other assets

information included with the file list may include directory information about how the assets are

organized within a computer system, as well as file names, file sizes, time and date stamps for

each assets, ownership of the asset, and other asset meta data as is described below."].

Claim 13:

A method as claimed in claim 11 wherein the nested and determinable method is by default

database order of the schema metadata elements [Col. 9 lines 24-29 "The other assets

information included with the file list may include directory information about how the assets are

organized within a computer system, as well as file names, file sizes, time and date stamps for

each assets, ownership of the asset, and other asset meta data as is described below."].

Claim 14:

A method as claimed in claim 11 wherein the nested and determinable method is by

creation date order of the schema metadata elements [Col. 9 lines 24-29 "The other assets

information included with the file list may include directory information about how the assets are

organized within a computer system, as well as file names, file sizes, time and date stamps for

each assets, ownership of the asset, and other asset meta data as is described below."].

Claim 15:

A method as claimed in claim 11 wherein the nested and determinable method is by table

owner of the schema metadata elements [Col. 9 lines 24-29 "The other assets information

included with the file list may include directory information about how the assets are organized

within a computer system, as well as file names, file sizes, time and date stamps for each assets,

ownership of the asset, and other asset meta data as is described below."].

Claim 16:

A method as claimed in claim 2 wherein the execution of the primary application is

controlled by halting execution of the primary application [Col. 12 lines 25-28, "If the unique

identifier is not properly verified, then control is transferred back to step 304 and the request for

the file identified in the e-CLIP is sent again. An error message or other notification may be generated as well."].

Claim 17:

A method as claimed in claim 2 wherein the execution of the primary application is controlled by the primary application sending an error message to one selected from the set of a user of the primary application, a manager of the primary application, a manager of the database, and the database [Col. 12 lines 25-28, "If the unique identifier is not properly verified, then control is transferred back to step 304 and the request for the file identified in the e-CLIP is sent again. An error message or other notification may be generated as well."].

Claim 19:

A method as claimed in claim 2 wherein the process obtains all available schema metadata [Col. 13 lines 21-23, "If all files have been received, then control is transferred to step 414 and it is indicated that all of the e-CLIP files have been obtained"].

Claim 20:

A method as claimed in claim 2 wherein the process only obtains the schema metadata which would affect the primary application if that schema metadata were to change [Col. 12 lines 25-28, "If the unique identifier is not properly verified, then control is transferred back to step 304 and the request for the file identified in the e-CLIP is sent again. An error message or other notification may be generated as well"].

Claim 22:

A method claimed in claim 2 wherein the process utilizes the database's API to obtain the schema metadata from the database [Col. 13 lines 28-34, "The assets, however, may be references to database records, video clips taken from within larger video streams, or other digital assets stored to be passed to other software programs or processes. Rather than instantiating directories and creating files with the contents of the digital assets, the recipient would make them available via some other standard application programming interface."] .

Claim 23:

A method as claimed in claim 22 wherein the database's API is JDBC [Col. 12 lines 62-67, "The process for broadcasting requests for files, receiving and verifying files, and modifying the broadcast request is accomplished in one embodiment using an importer, which is a small program encoded preferably in the JAVA programming language, or in any other suitable language"].

Claim 24:

A system for verifying for a plurality of applications the integrity of one or more databases including:

    vi.   **a plurality of applications adapted to store a plurality of previously calculated reduced representations of schema metadata for one or more databases** [col. 12 lines 11-14, Such e-CLIPs may be embedded in and

readily accessed from database applications, legacy applications running on

mainframes, text retrieval applications, web sites, etc], **to extract a plurality**

of schema metadata for one or more databases [Col. 13 lines 21-23, "If all

files have been received, then control is transferred to step 414 and it is

indicated that all of the e-CLIP files have been obtained"], **to newly calculate**

a plurality of reduced representations from the plurality of extracted

schema metadata[Col. 14 lines 35-38, "Verification is achieved by

comparing the cryptographic hash asset identifier to a newly generated MD5

cryptographic hash asset identifier calculated using the received asset (binary

sequence)"], and **to compare each of plurality of previously calculated**

reduced representations with its corresponding newly calculated reduced

representation[Col 3 lines 35-37, "The differences between Should Have

lists and Already Have lists for individual computers are used to determine

which items must be compared to update individual desktops."]; and

vii.   **one or more databases adapted to receive requests for schema metadata**

from the plurality of applications and to transmit schema metadata to the

plurality of applications [Col. 12 lines 40-47, "Responses offering copies of

the requested files are analyzed and copies of the files are retrieved from the

most effective sources available including local file systems, local networked

file systems available to the system on which the recipient is executing,

standard networking protocols such as the File Transfer Protocol (FTP), or

through any other networked protocol as may be devised or specified."].

Claim 26:

A system as claimed in claim 24 wherein the reduced representations are calculated using a hash function [Col. 14 lines 35-38, "Verification is achieved by comparing the cryptographic hash asset identifier to a newly generated MD5 cryptographic hash asset identifier calculated using the received asset (binary sequence)"].

Claim 27:

A system as claimed in claim 26 wherein the hash function is one selected from the set of MD5 and CRC32 [Col. 14 lines 35-38, "Verification is achieved by comparing the cryptographic hash asset identifier to a newly generated MD5 cryptographic hash asset identifier calculated using the received asset (binary sequence)"].

Claim 28:

A system as claimed in claim 24 wherein reduced representations are calculated using a lossless compression algorithm [Carpentier, Col. 2 lines 8-10, "Examples of archive utilities include the "tar" archiving facility common on UNIX systems and the various "zip" programs on personal computers."].

Claim 29:

A system as claimed in claim 28 wherein the lossless compression algorithm is one selected from the set of zip, gzip, bzip2 [Carpentier, Col. 2 lines 8-10, "Examples of

archive utilities include the "tar" archiving facility common on UNIX systems and the various "zip" programs on personal computers."].

Claim 30:

A system as claimed in claim 24 wherein each previously calculated reduced representation is stored by embedding the representation within its associated application [Col. 12 lines 30-36, "Such e-CLIPs may be embedded in and readily accessed from database applications, legacy applications running on mainframes, text retrieval applications, web sites, etc"].

Claim 31:

A system as claimed in claim 24 wherein each previously calculated reduced representation is stored by embedding the representation within configuration files for its associated application [Col. 12 lines 30-36, "If the unique identifier is verified in step 310, then control is transferred to step 312 and the recipient builds the directory structure specified in the descriptor file. Programming logic is applied to perform system configurations and file operations to create the required directories, using programming operations such as those described by H[T]ML, for example."].

Claim 32:

A system as claimed in claim 24 wherein each schema metadata is organized using a nested and determinable method before its reduced representation is calculated [Col. 5

lines 28-36, "In addition, an embodiment of the present invention is advantageous when file

directory structure is also included with the file list. Having such file directory structure is

helpful in determining how to organize files amongst their respective folders. For example,

after data is lost on a particular computer, the file list can be used to not only identify lost

files, but also to reorganize the files into the appropriate directory structure. Similarly, meta

data about database records cataloged in a descriptor file can be used to identify tables or

files to which those records pertain."].

Claim 33:

A system as claimed in claim 32 wherein the nested and determinable method is by

alphabetical listing of the schema metadata elements [Col. 9 lines 24-29, "The other

assets information included with the file list may include directory information about how the

assets are organized within a computer system, as well as file names, file sizes, time and date

stamps for each assets, ownership of the asset, and other asset meta data as is described

below."].

Claim 34:

A system as claimed in claim 32 wherein the nested and determinable method is by

default database order of the schema metadata elements [Col. 9 lines 24-29, "The other

assets information included with the file list may include directory information about how the

assets are organized within a computer system, as well as file names, file sizes, time and date

stamps for each assets, ownership of the asset, and other asset meta data as is described

below."].

Claim 35:

A system as claimed in claim 32 wherein the nested and determinable method is by

creation date order of the schema metadata elements [Col. 9 lines 24-29, "The other

assets information included with the file list may include directory information about how the

assets are organized within a computer system, as well as file names, file sizes, time and date

stamps for each assets, ownership of the asset, and other asset meta data as is described

below."].

Claim 36:

A system as claimed in claim 32 wherein the nested and determinable method is by

table owner of the schema metadata elements [Col. 9 lines 24-29,"The other assets

information included with the file list may include directory information about how the assets

are organized within a computer system, as well as file names, file sizes, time and date

stamps for each assets, ownership of the asset, and other asset meta data as is described

below."].

Claim 37:

A system as claimed in claim 24 wherein the result of each comparison controls

execution of its associated application [Col. 12 lines 25-28, "If the unique identifier is not

properly verified, then control is transferred back to step 304 and the request for the file

identified in the e-CLIP is sent again. An error message or other notification may be

generated as well."].

Claim 38:

A system as claimed in claim 37 wherein the execution of the application is controlled

by halting execution of the application [Col. 12 lines 25-28, "If the unique identifier is not

properly verified, then control is transferred back to step 304 and the request for the file

identified in the e-CLIP is sent again. An error message or other notification may be

generated as well."].

Claim 39:

A system as claimed in claim 37 wherein the execution of the application is controlled

by the application sending an error message to one selected from the set of a user of the

application, a manager of the application, a manager of the associated database, and the

associated database [Col12 lines 25-28, "If the unique identifier is not properly verified,

then control is transferred back to step 304 and the request for the file identified in the e-

CLIP is sent again. An error message or other notification may be generated as well."].

Claim 41:

A system as claimed in claim 24 wherein each application is adapted to extract all

available schema metadata from each database [Col. 13 lines 25-28, "If all files have been

received, then control is transferred to step 414 and it is indicated that all of the e-CLIP files have been obtained"].

Claim 42:

A system as claimed in claim 24 wherein each application is adapted to extract the schema metadata which would affect the application if that schema metadata were to change [Col. 12 lines 25-28, "If the unique identifier is not properly verified, then control is transferred back to step 304 and the request for the file identified in the e-CLIP is sent again. An error message or other notification may be generated as well"].

Claim 44:

A system as claimed in claim 24 wherein each application is adapted to utilize the databas's API to extract the schema metadata from each database [Col. 13 lines 28-34, "The assets, however, may be references to database records, video clips taken from within larger video streams, or other digital assets stored to be passed to other software programs or processes. Rather than instantiating directories and creating files with the contents of the digital assets, the recipient would make them available via some other standard application programming interface."].

Claim 45:

A system as claimed in claim 44 wherein the database's API is JDBC [Col. 12 lines 62-67, "The process for broadcasting requests for files, receiving and verifying files, and

modifying the broadcast request is accomplished in one embodiment using an importer,

which is a small program encoded preferably in the JAVA programming language, or in any

other suitable language"].

Claim 46:

A system for verifying for an application the integrity of a database including:

> i.   **an application** [Col. 1 lines 22-27, "Digital information must often be
>
> identified to be in a particular state, denoted by the status of an asset (such as a file)
>
> as of some event or time. Such assets include traditional data files, multimedia files
>
> and fragments, records from structured databases, or any other string of digital
>
> information used wholly or in part by some application or device"];

> ii.   **a stored reduced representation of schema metadata of a**
>
> **database**[Col. 5 lines 57-59, "There is no restriction on the data, meta data or file
>
> system structure that can be stored and referenced by an e-CLIP"]; **and**

> iii.   **a verification engine which upon connection to a database obtains a**
>
> **reduced representation of schema metadata from the database and compares it**
>
> **with the stored reduced representation to control the application** [Col. 12 lines
>
> 57-62, "Once the descriptor file is received, the e-CLIP recipient is able to verify that
>
> the correct descriptor file has been recovered and then broadcasts requests for the

files specified in the descriptor file. Those files are inserted into the directory

structure specified in the descriptor file once they are received and verified."].

Claim 48:

A system as claimed in claim 46 wherein the reduced representations are calculated

using a hash function [col. 14 lines 34-38, "Verification is achieved by comparing the

cryptographic hash asset identifier to a newly generated MD5 cryptographic hash asset

identifier calculated using the received asset (binary sequence)"].

Claim 49:

A system as claimed in claim 46 wherein the reduced representations are calculated

using a hash function [Col. 14 lines 34-38, "Verification is achieved by comparing the

cryptographic hash asset identifier to a newly generated MD5 cryptographic hash asset

identifier calculated using the received asset (binary sequence)"].

Claim 50:

A system as claimed in claim 48 wherein each schema metadata is organized using a

nested and determinable method before its reduced representation is calculated [col. 5

lines 28-38, "In addition, an embodiment of the present invention is advantageous when file

directory structure is also included with the file list. Having such file directory structure is

helpful in determining how to organize files amongst their respective folders. For example,

after data is lost on a particular computer, the file list can be used to not only identify lost

files, but also to reorganize the files into the appropriate directory structure. Similarly, meta

data about database records cataloged in a descriptor file can be used to identify tables or

files to which those records pertain."].

Claim 51:

A system as claimed in claim 46 wherein the application is controlled by halting

execution of the application [Col. 12 lines 25-28, "If the unique identifier is not properly

verified, then control is transferred back to step 304 and the request for the file identified in

the e-CLIP is sent again. An error message or other notification may be generated as well."].

Claim 52:

A system as claimed in claim 46 wherein the application is controlled by the application

sending an error message to one selected from the set of a user of the application, a

manager of the application, a manager of the associated database, and the associated

database [col. 12 lines 25-28, "If the unique identifier is not properly verified, then control is

transferred back to step 304 and the request for the file identified in the e-CLIP is sent again.

An error message or other notification may be generated as well."].

Claim 53:

A computer system for effecting the method of claim 1 [col. 17 lines 67-67 and col. 18

line 1, "In addition, embodiments of the present invention further relate to computer storage

products with a computer-readable medium that have computer code thereon for performing

various computer-implemented operations. The media and computer code may be those specially designed and constructed for the purposes of the present invention, or they may be of the kind well known and available to those having skill in the computer software arts."].

Claim 54:

Software for effecting the method of claim 1 [col. 17 lines 67-67 and col. 18 line 1, "In addition, embodiments of the present invention further relate to computer storage products with a computer-readable medium that have computer code thereon for performing various computer-implemented operations. The media and computer code may be those specially designed and constructed for the purposes of the present invention, or they may be of the kind well known and available to those having skill in the computer software arts."].

Claim 55:

Storage media containing software as claimed in claim 54 [col. 17 lines 67-67 and col. 18 line 1, "In addition, embodiments of the present invention further relate to computer storage products with a computer-readable medium that have computer code thereon for performing various computer-implemented operations. The media and computer code may be those specially designed and constructed for the purposes of the present invention, or they may be of the kind well known and available to those having skill in the computer software arts."].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or
> described as set forth in section 102 of this title, if the differences between the subject
> matter sought to be patented and the prior art are such that the subject matter as a whole
> would have been obvious at the time the invention was made to a person having ordinary
> skill in the art to which said subject matter pertains. Patentability shall not be negatived
> by the manner in which the invention was made.

Claims 18, 21, 40, and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Carpentier as applied to claims 1-2, 4, 6, 7-17, 19-20, 22-24, 26-39, 41-42, 44-46, 48-51,

and 52-55 above, and further in view of U.S. Patent 6,957,221, Hart et. al. (hereafter Hart).

Claim 18:

Carpentier discloses the method of claim 2.

However Carpentier does not explicitly discloses including the step of:

requesting a schema stability lock of the database.

On the other hand Hart, discloses, Col. 5 lines 43-47, audit blocking which is "..a structured

package containing potentially many Audit Records (in the extreme situation, it is also possible

that a single Audit Block could only contain a partial Audit Record). There are a number of

control words at the beginning and end of each audit block.".

Therefore it would have been obvious to one of ordinary skill to modify Carpentier to include the

steps of requesting a schema stability lock of the database for the purpose of avoiding

interference with changes being made to the data.

Claim 21:

Carpentier discloses a method as claimed in claim 2; however Carpentier does not

explicitly disclose wherein the process utilizes SQL 92 [2]standard to obtain the schema

metadata from the database

Hart discloses, Col. 10 lines 62-65, standardized language for defining querying, maintaining,

and protecting the contents of a relational database.

Therefore it would have been obvious to one of ordinary skill to modify Carpentier to include the

step of having the process utilize SQL 92 standard to obtain the schema metadata from the

database, based on the disclosure of Hart for the purpose of modifying a database.

Claim 40:

Carpentier discloses the system of claim 24.

However Carpentier does not explicitly discloses **including the step of:**

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[2] interpreting as structured query language.

> **requesting a schema stability lock of one or more database.**

On the other hand Hart, discloses, Col. 5 lines 43-47, audit blocking which is "..a structured package containing potentially many Audit Records (in the extreme situation, it is also possible that a single Audit Block could only contain a partial Audit Record). There are a number of control words at the beginning and end of each audit block.".

Therefore it would have been obvious to one of ordinary skill to modify Carpentier to include the steps of requesting a schema stability lock of the database for the purpose of avoiding interference with changes being made to the data.

Claim 43:

A system as claimed in claim 24 wherein each application is adapted to utilize the SQL92 standard to extract the schema metadata from each database [Hart, A standardized language for defining, querying, maintaining, and protecting the contents of a relational database.].

Hart discloses, Col. 10 lines 62-65, standardized language for defining querying, maintaining, and protecting the contents of a relational database.

Therefore it would have been obvious to one of ordinary skill to modify Carpentier to include the

step of having the process utilize SQL 92 standard to obtain the schema metadata from the

database, based on the disclosure of Hart for the purpose of modifying a database.

Claim 3, 5, 25, and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Carpentier as applied to claim 1-2, 4, 6, 7-17, 19-20, 22-24, 26-39, 41-42, 44-46, 48-51,

and 52-55 above, and further in view of Admitted prior art (Application Background,

hereafter Background).

Claim 3:

Carpentier discloses the method of claim 2 however does not explicitly disclose

wherein the schema metadata is selected from the set of tables, columns in tables,

datatypes of columns, lengths of columns, custom database data types, foreign keys,

constraints, stored procedures, views, triggers, indices, and scheduled jobs.

Background discloses on page 1: "Schema metadata includes tables, columns in tables,

datatypes of columns, lengths of columns, custom database data types, foreign keys,

constraints, stored procedures, views, triggers, indices, and scheduled jobs."

Both inventions are directed towards verification of data. Therefore, it would have been

obvious to one of ordinary skill at the time the invention was made to modify Carpentier to

include the steps of having schema metadata selected from the set of tables columns in tables,

datatypes of columns, lengths of columns, custom database data types, foreign keys,

constraints, stored procedures, views triggers, indices, and scheduled jobs based on the

disclosure of the Background for the purpose of assuring "integrity of the structure of

database before using it."

Claim 5:

A method as claimed in claim 3 wherein the hash function is one selected from the set of

MD5 and CRC32 [Carpentier, Abstract, MD5].

Claim 25:

Carpentier discloses the method of claim 24 however does not explicitly disclose

wherein the schema metadata is selected from the set of tables, columns in tables,

datatypes of columns, lengths of columns, custom database data types, foreign keys,

constraints, stored procedures, views, triggers, indices, and scheduled jobs.

Background discloses on page 1: "Schema metadata includes tables, columns in tables,

datatypes of columns, lengths of columns, custom database data types, foreign keys,

constraints, stored procedures, views, triggers, indices, and scheduled jobs."

Both inventions are directed towards verification of data. Therefore, it would have been
obvious to one of ordinary skill at the time the invention was made to modify Carpentier to
include the steps of having schema metadata selected from the set of tables columns in tables,
datatypes of columns, lengths of columns, custom database data types, foreign keys,
constraints, stored procedures, views triggers, indices, and scheduled jobs based on the
disclosure of the Background for the purpose of assuring "integrity of the structure of
database before using it."

Claim 47:

**Carpentier discloses the system of claim 46 however Carpentier does not explicitly
disclose wherein the schema metadata is selected from the set of tables columns in
tables, datatypes of columns, lengths of columns, custom database data types, foreign
keys, constraints, stored procedures, views triggers, indices, and scheduled jobs**

**Background discloses on page 1: "Schema metadata includes tables, columns in tables,
datatypes of columns, lengths of columns, custom database data types, foreign keys,
constraints, stored procedures, views, triggers, indices, and scheduled jobs."**

Both inventions are directed towards verification of data. Therefore, it would have been
obvious to one of ordinary skill at the time the invention was made to modify Carpentier to
include the steps of having schema metadata selected from the set of tables columns in tables,
datatypes of columns, lengths of columns, custom database data types, foreign keys,

constraints, stored procedures, views triggers, indices, and scheduled jobs based on the

disclosure of the Background for the purpose of assuring "integrity of the structure of

database before using it."

Conclusion

The prior art made of record, listed on form PTO-892, and not relied upon, if any, is considered

pertinent to applicants disclosure.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Michael D. Pham whose telephone number is (571)272-3924.

The examiner can normally be reached on Monday - Friday 8am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Jean R. Homere can be reached on 571-272-3780. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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2/21/2006   2/21/2006